

## CRP Practice CP33 Specifications

### Habitat Buffers for Upland Birds

#### DESCRIPTION

Habitat buffers for bobwhite quail and other upland birds are strips of vegetation established around the edges of crop fields to provide habitat for bobwhite quail and other upland birds. Many of these grassland dependent birds have suffered population declines due to loss of habitat. One hundred sixty of the over 500 terrestrial vertebrate species in Missouri prefer these edge habitats. Habitat buffers can provide important nesting, brood rearing and escape cover while also serving as wildlife travel corridors between areas of suitable habitat. In addition to habitat for upland birds, these buffers may provide habitat for other animals and may limit sediment, nutrients, pesticides and other contaminants from entering streams and other water bodies.

By diversifying vegetation in these buffers, desirable habitat will develop. The diversity of planted species, combined with management to increase open cover, will provide food sources in the forms of seed, insects and soil invertebrates. Shrubs need to be included where woody cover is lacking so that adequate covey headquarters are present. There are several options available to create the woody cover required by upland birds using these buffer habitats.

#### BOBWHITE QUAIL HABITAT REQUIREMENTS

Quail require three habitat types. The following guidelines present minimum requirements for bobwhite quail habitat development per 40 acres.

1. **Shrubby Cover (Covey Headquarters)** – areas of dense woody vegetation with a low growing canopy (3-12' high) and little vegetation at ground level. Quail will center their activity on this cover type. Existing native shrub thickets, edge feathering, downed tree structures and covey headquarters (shrub plantings) may meet the minimum requirement of 0.1 acre per 40

acres of, field. For the greatest habitat gains, shrubby cover locations should be separated into three, 30x50 foot areas immediately adjacent or throughout the border. See Covey Headquarters Job Sheet, Edge Feathering Job Sheet, Downed Tree Structures Job Sheet, or NRCS Standard 645 – Upland Wildlife Habitat Management for planting information.

2. **Bare Ground** – the goal is to have 30% to 70% bare ground between clumps of vegetation. This bare ground will allow ease of movement for quail. The remaining vegetation will provide an overhead canopy for protection from predators. Bare ground can be created by light disking, chemical treatment, and prescribed burning. The bare ground component required for this practice will be met within the CP33 boundaries by the seeding mixture used coupled with the CRP mid-contract management requirements.
3. **Diverse Plant Community** – made up of native grasses, legumes and forbs with good/excellent wildlife values.



*Upland Bird Habitat Buffers not only provide food and cover for wildlife, but also reduce soil erosion, improve water quality, provide cover for beneficial insects and often improve overall crop production on the entire field.*



## NATURAL SUCCESSION OPTION

Agricultural management practices will be terminated to allow natural plant succession to occur. Natural succession will be planned for the least erosive parts of fields (NHLE) and will not be planned where gully formation or excessive sheet erosion/rill is a problem. NRCS will provide guidance if this option is available.

### Maintenance for Noxious Weeds and Woody Growth Control

**Management After Establishment** – Use spot chemical treatment or prescribed fire to control undesired plants. After an adequate stand is established, maintenance activities are allowed only on a spot basis and only with prior approval of the FSA County Committee.

## MID-CONTRACT MANAGEMENT

Check with your local FSA office for current information on required management activities. See 2-CRP, MO Exhibit 17 for the mid-contract management schedule. Light disking will only be used where excessive erosion is not a concern.

### Planned Management:

- ☐ Prescribed Burning ☐ Disking ☐ Spraying
- ☐ Interseed native forbs (rate per acre):
- ☐ Interseed legumes: (rate per acre):

Additional guidance:

## SHRUB PLANTING AREAS

Establish a minimum of 0.1 acre of shrub plantings on each 40 acres of cropland. For the greatest quail habitat gains the 0.1 acre can be distributed as 3 separate 30' X 50' plantings along the buffer. Up to 10% of the buffer may be planted to shrubs. Each 30' x 50' planting, the minimum size of a Quail Covey Headquarter requires either 77 bareroot shrubs or 40 container-grown shrubs. Plant the shrubs in rows for easy identification. If multiple species are planted, intermix the species in each covey headquarter (ex. plant wild plum, gray dogwood and blackberry in the same covey headquarter).

If possible, store seedlings in cold storage (35° to 40° Fahrenheit). Otherwise, place seedlings in a ventilated, cool, shaded place. Seedling should be kept moist, but not wet. Avoid physical damage to roots during storage. If seedlings need to be stored for over one week and cold storage is not available, the seedlings should be heeled in. This is done by digging a slightly sloping trench, placing the seedlings in the trench and covering the roots with moist soil. Do not allow the roots to dry out. If possible, place the trench in a shady location, out of direct sunlight.

Bare-rooted shrubs may be planted with a mattock, dibble or planting bar or mechanical tree planter. Container shrubs are planted by digging a hole big enough (up to 2 times as wide as the root volume) to hold the container volume. With all planting methods, the following measures are to be followed:

- Plant the shrub at the depth it was growing in the nursery. The root collar should line up with the soil surface.
- Plant the shrub upright. Make sure the roots are hanging downward in a natural position and not doubled or sharply bent. Remove any packaging material from container plants.

- Pack the soil firmly around the roots so that the shrub is held in place, there is good soil-root contact, and any air pockets are eliminated.
- Plant only one shrub per spot.
- Do not allow plant roots to dry out while planting.
- Arrange shrub planting rows on the contour on sloping ground to avoid soil erosion within the planting furrow.
- If needed, root-prune seedlings that have excessively long main or lateral roots (roots longer than the effective depth capacity of planting tools or machines). No more than one-quarter of the root system should be removed.

#### SEE PLAN MAP FOR SHRUB PLANTING LOCATIONS

Number of 30'x50' Covey Headquarters planned:

Or total acres of shrubs to be planted:

Recommended species	Number of shrubs needed

#### Total Number of Shrubs Needed

#### Planting

Any vegetation that would hinder planting or provide excessive competition to the seedlings should be controlled or removed prior to planting. If herbicides are applied, follow label rates

#### Site Preparation

☐ Tillage:

☐ Herbicide:

Planting Date:

Plant Spacing:      ft. x      ft.

Planting Method:

Row Spacing:      ft.

#### Post-Planting Maintenance

#### Weed control

☐ Herbicide:

☐ Cover Crop:

PLS pounds/acre

☐ Other:

Additional guidance:

## OTHER WOODY COVER OPTIONS

Existing shrubby cover will be maintained or created immediately adjacent or within the buffer, using downed tree structures, edge feathering or existing native shrub thickets. These practices may be used as an alternative to planting shrubs within in the CP33 buffer, however, these activities will not be cost shared through the CRP contract.

See attached job sheets for additional information on these practices.

See attached map for planned locations.

### Planned Activity

#### ☐ **Edge Feathering :**

#### **Amount of Edge Feathering Planned:**

- Provide 0.1 to 1.0 acre of dense woody cover per 5-40 acres of wildlife friendly habitat. The minimum size of an area to edge feather is 30'X50'. It takes three 30'X50' areas to equal 0.1 acre. Cutback borders should be a minimum of 30 feet deep into a wooded area. Measure from the tree trunk back into the wooded area. Do not measure from the branch drip line/shade line or from where the trees fall out into the field.
- Edge feathering may be completed in blocks or in long linear strips along the field edge.
- Cut all trees over 15' tall in the area to be edge feathered. An occasional tree may be left to preserve valuable timber or mast producing species (oak, persimmon, mulberry, etc.). Leave no more than one or two trees over 15 feet tall in the area to be edge feathered.
- Treat all cut stumps with an approved herbicide to prolong the benefits of edge feathering. Leave native shrubs like dogwood or plum.
- If possible, leave felled trees where they fall. Edge feathered trees may be dropped parallel to the fence line/field edge or cut and loosely stacked along the edge of the field. Do not push the downed trees into a dense brush pile.
- Edge feathering may be completed with a chainsaw or mechanical clipper.
- If non-wildlife friendly grass (tall fescue, smooth brome, etc.) is present, kill it with an approved contact or grass herbicide before cutting trees. This provides good growing conditions for annual food plants and shrubs.

#### ☐ **Downed Tree Structures:**

#### **Number of Downed Tree Structures Planned:**

- Create 0.1 acre to 1.0 acre of dense woody cover per 5-40 acres of wildlife friendly habitat. The minimum size of a downed tree structure is 30 feet wide and a total of 1500 square feet in size. It takes three downed tree structures of this size to equal 0.1 acre.
- Choose well branched, durable trees that are at least 20 feet in height (do not count the unbranched trunk). When complete, the downed tree structure will cover at least 1500 square feet with interlaced branches, regardless of individual tree heights used for construction. Oak, hickory, cedar and Osage orange make good downed tree structures. Elm, cottonwood and willow do not make good down tree structures.
- Downed trees should not be pushed into dense brush piles. Simply drag the downed trees into a loose arrangement.
- If non-wildlife friendly grass is present (tall fescue, smooth brome, etc...), kill it with an approved contact herbicide before installing downed tree structures.
- Downed tree structures can be used to enhance new shrub plantings or placed in large fields or field borders with inadequate shrubby cover.
- For additional benefits, plant shrubs in and around structures. Plant shrub dogwoods, American plum, blackberry, indigo bush or aromatic sumac. A mix of plants provides greater vegetative diversity.

#### ☐ **Enhance/Maintain Existing Native Shrubby Cover**

- If non wildlife friendly grass is present, kill competing vegetation with an approved contact herbicide during the dormant season in late fall or early spring or use a selective herbicide during the growing season.
- Cut competing trees around existing shrub thickets.
- If necessary, plant additional shrubs adjacent to the existing shrub thickets.

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